

REMARKS

The disclosure is objected to and the claim stands rejected pursuant to 37 C.F.R. § 1.163(a) and under 35 U.S.C. § 112, first and second paragraphs. Applicants believe that the amendments made to the specification specifically address the Examiner's objections detailed in Paragraphs A-AE on pages 3-11 of the Office Action. Withdrawal of the objection and reconsideration of the rejection under 35 U.S.C. § 112, first and second paragraphs, are respectfully requested.

Applicants have amended the Title of the present application and, pursuant to the Examiner's request, Applicants have amended the Claim and the Abstract of the present application.

CONCLUSION

In light of the foregoing, allowance of the claim is respectfully requested.

Respectfully submitted,

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PRUNUS ROOTSTOCK NAMED 'GI 209/1'

BOTANICAL CLASSIFICATION

Interspecific *Prunus hybrid*

VARIETAL DENOMINATION

'GI 209/1'

BACKGROUND OF THE INVENTION

The present invention comprises a new and distinct cultivar of Interspecific *Prunus hybrid* used as a rootstock known by the varietal name 'GI 209/1'. The new variety was discovered in Giessen, Germany in 1969. The new variety is the result of a planned breeding program between *Prunus cerasus* 'Shattenmorelle' (unpatented female parent) and a *Prunus canescens* (male parent). The new variety differs from its parents in that it is a triploid genome. The purpose of the breeding program was to produce a series of dwarfing, precocious, productive rootstocks for sweet cherries. The new variety has been trial and field tested and has been found to retain its distinctive characteristics and remain true to type through successive propagations.

'GI 2091' IN COMPARISON TO CHERRY ROOTSTOCK 'GI 148/1' (PP8,954)

AND CHERRY ROOTSTOCK 'GI 148/2' (PP9,622)

- Leaf color: During main growth period, leaves of 'GI 2091' are somewhat brighter in colors than 148/1 and 148/2 (in autumn, there is no difference in color).
- Habitus: In contrast to 148/1 and 148/2, which grow more upright, the habitus of 'GI 2091' is more weeping and it has more lateral branches.
- Rooting system: 'GI 2091' has a finer root system and has fewer stronger roots than 148/1 and 148/2.

DESCRIPTION OF THE DRAWINGS

The accompanying photographic drawing illustrates the new cultivar, with the color being as nearly true as is possible with color illustrations of this type. The word GIESSEN in Fig. 1 is the location of discovery.

Fig. 1 illustrates two entire plants of the new variety; and

Fig. 2 is a close-up of the leaves and branches of the new variety.

DESCRIPTION OF THE PLANT

The following detailed description sets forth the characteristics of the new cultivar. The data which defines these characteristics were collected by asexual reproductions carried by green cuttings under mist and in vitro conditions. The first and

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subsequent asexual reproductions occurred in approximately 1972 in Giessen, Germany. The plant was four years old when described. The color readings were taken in natural daylight. Color references are primarily to the R.H.S. Colour Chart of The Royal Horticultural Society of London.

PLANT

Use: Only as a rootstock.

~~Size: Small.~~

Average tree height at top of foliage: 3 m.

Average tree diameter at the widest point: 3 m.

Form: Bushy; crown is more broad than high; flat branching.

Productivity: Early blooming and high blossom intensity.

Fruit bearing: Very rare.

USDA Hardiness zone: ~~Good.~~ 5.

Rooting habit: Freely branching and fibrous; highly dense.

Time to initiate roots: 3-4 weeks.

Disease and pest resistance: Tolerant to Prunus dwarf virus (PDV) and Prunus necrotic ringspot virus (PNRSV).

Trunk (~~described at 2 years~~):

Diameter: 12 mm at one year.

Height: 150 cm.

Bark color:

Surface: ~~Dark brown.~~ N186C.

Flesh inside: ~~Light green.~~ 2C.

Lenticels:

Color: ~~White-cream~~ 188D.

Diameter: 1 mm.

Arrangement: Irregular.

Branches:

Color:

Surface: ~~Brown~~ 199A.

Flesh inside: ~~Light yellow~~ 149D.

Internode length: Approximately 3 cm.

Branching angle at emergence: 60 – 80°.

Diameter: Average diameter of a 1-year old branch is 4.5 mm.

~~Approximately 1/3 the diameter of the trunk.~~

Length: Average length of a 1-year old branch is 25 cm. ~~Approximately 2/3 the length of a 1-year old trunk.~~

Pubescence: None.

Branch lenticels:

Color: ~~White-cream.~~ N170C.

Diameter: 1 mm.

Arrangement: Irregular.

Leaves:

Length: 7.5 cm.

Width: 4.2 cm.

Shape: Lanceolate.

Apex: Acuminate.

Base: Rounded; elliptical.

Color:

Adaxial: ~~Bright green.~~ 137A.

Abaxial: ~~Light green.~~ 138A.

Surface:

Adaxial: Arched intercostal areas.

Abaxial: Pilose.

Margins: Serrated.

Division: Leaves are entire, meaning not divided.

Petiole:

Length: 1.5 cm.

Width: 1.5 mm.

Color: ~~Light greenish-brown.~~ 59B.

Surface: Smooth.

Leaf stipules:

Presence: Two at the base of the petiole.

Shape: Lanceolate.

Length: 1.0 cm.
 Leaf pubescence: Slight.
 Venation pattern: Pinnate.
 Vein color:
 Adaxial: ~~Yellow~~.138A.
 Abaxial: ~~Light yellow~~.145C.
 Leaf texture: Herbaceous.
 Fruit description: ~~Little, similar to *Prunus avium*.~~

Fruit:

Shape: Round.
Length: 12.5 mm.
Diameter: 12.0 mm.
Height: 0.9 g.
Arrangement: Single.
Skin Color: 46B.
Flesh Color: 35B.
Acidity: Light.
Aroma: None.
Taste: Bittersweet.

Flower:

Arrangement: ~~Similar to *Prunus avium*~~Single.
 Shape: ~~Similar to *Prunus avium*~~Oblong.

Bud:

Shape: Acute apex with overlapping bud scales.
Width: 3.0 mm.
Length: 5.0 mm.
Color:

Closed: ~~Yellow-brown~~178C.

Before bursting: ~~Greenish-brown~~179C.

Time of bloom: April.

Lastingness of entire plant bloom period: 20 days. ~~Two to three~~
~~weeks.~~

Diameter:	10 – 15 mm.
Depth:	10 – 15 mm.
Bloom quantity:	Very fertile; an enormous quantity of flowers.
Number of petals:	Five.
Petal margin:	Rounded; entire.
<u>Petal:</u>	
<u>Number:</u>	<u>Five.</u>
<u>Length:</u>	<u>5 mm.</u>
<u>Width:</u>	<u>7 mm.</u>
<u>Texture:</u>	<u>Velvet-like.</u>
<u>Color:</u>	
<u>Upper surface:</u>	<u>69B.</u>
<u>Lower surface:</u>	<u>69C.</u>
<u>Margin:</u>	<u>Rounded; entire.</u>

Upper surface: ~~White.~~69B.
Lower surface: ~~White.~~69C.

Length: 15 – 20 mm.
Width: 1 mm.
Surface: Smooth.
Color:

Upper surface: ~~Yellow green.~~59B.
Lower surface: ~~Yellow to brownish green.~~59B.

Number: Five.

Length: 1.7 mm.

Diameter: 2.1 mm.

Length: 27 mm.
Diameter: 1 mm.

Color: 20B.
Natural flowering season: ~~Comparable to *Prunus avium*.~~
Fragrance: Present.

Seed:

Shape: Stone-like; oval.
Length: 8 mm.
Diameter: 5 mm.
Color: 23D.

Multiplication ability: Good via softwood cuttings.

Performance as a grafted rootstock:

Root sprouts: No suckers observed.
Anchorage: Needs support.
Compatibility: Good virus-free budding material.
Vigor: Strong growth reduction.

REPRODUCTIVE ORGANS

Stamens:

Number: Five.
Length: 10 – 15 mm.
Color: Yellow-green.

Anthers:

Shape: Rounded.
Color: Yellow-brown.
Length: 1.0 mm.
Width: 0.5 – 1.0 mm.
Amount of pollen: Average.
Color of pollen: Yellow.
Stigma color: Green.

Pistils:

Number: One.
Length: 2.0 – 3.0 mm.

Style:

Color: Green.

Form: Rounded.
Length: 2.0 mm.
Width: 1.5 – 2.0 mm.

Ovaries:

Length: 3.0 mm.
Width: 2.0 mm.
Color: Green.
Position: Protruding.

ADDITIONAL INFORMATION

Enzyme polymorphism (horizontal starch gel electrophoresis of leaf tissue of 8 loci) of 'GI 2091':

<u>Aconitase-2</u>	<u>24</u>
<u>Alcoholdehydrogenase-1</u>	<u>1</u>
<u>Isocitratdehydrogenase-2</u>	<u>112</u>
<u>Leucinaminopeptidase-1</u>	<u>23</u>
<u>6-Phosphogluconat-Dehydrogenase-1</u>	<u>11H</u>
<u>6-Phosphogluconat-Dehydrogenase-2</u>	<u>122</u>
<u>Phosphoglucose-Isomerase-2</u>	<u>24</u>
<u>Phosphoglucomutase-2</u>	<u>25</u>

I CLAIM:

1. A new and distinct variety of Interspecific *Prunus hybrid* plant used as rootstock substantially as shown and described.

INTERSPECIFIC PRUNUS ROOTSTOCK NAMED 'GI 209/1'

ABSTRACT OF THE DISCLOSURE

A new and distinct Interspecific *Prunus hybrid* plant used as a rootstock that exhibits dwarf-like productive growth.